AF JFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:

MARTIN H. GRAHAM

Application No.: 09/221,291

Filed: December 23, 1998

For: **Biphase Multiple Level Communications**

Art Unit: 2611

Examiner: Burd, Kevin Michael

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to the Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450

on August 22, 2008
Date of Deposit

Conny Willesen
Name of Person Mailing Correspondence

Signature 08-22-08
Date

Mail Stop Appeal Brief-Patents
Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CORRECTION OF APPEAL BRIEF UNDER 37 C.F.R. § 41.37(d)

Dear Sir:

Applicant hereby submits this Correction of Appeal Brief in reply to the Notification of Non-Compliant Appeal Brief, mailed July 25, 2008. The original appeal brief, filed July 14, 2008, was rejected for failure to provide the status of all claims filed in the application and failure to identify and separately refer each independent claim to the specification by page and line number. Please accept the following as replacements for the defective sections.

(iii) STATUS OF CLAIMS

Claims 1-18 are cancelled.

Claims 19-25 are pending.

Claims 19-22, 24, and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fullerton et al. (U.S. Patent No. 5,677,927) (hereinafter "Fullerton") in view of Omura et al. (U.S. Patent No. 5,157,686) (hereinafter "Omura") further in Devon (U.S. Patent No. 5,692,127) (hereinafter "Devon"). Claim 23 is rejected in view of an additional reference, Pernyeszi (U.S. Patent No. 5,969,547) (hereinafter "Pernyeszi").

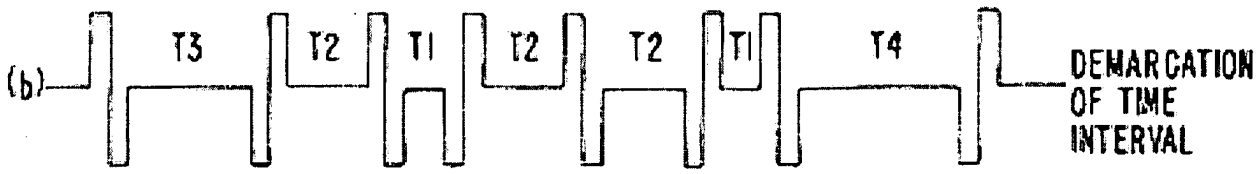
The applicant respectfully appeals from the office action dated January 25, 2008 with respect to all the pending claims, claims 19-25. A copy of the claims as they currently stand is attached in the Claims Appendix.

(v) SUMMARY OF CLAIMED SUBJECT MATTER

The application contains two pending independent claims. Claim 19 describes a method for encoding data for transmission and claim 25 describes a method of decoding a transmission.

a. Independent Claim 19

This method encodes data into a waveform as illustrated in one embodiment by Figure 2b of Graham.



Graham Figure 2b

In the figure there are a series of biphasic pulses separated by time. Importantly, the application teaches using first biphasic pulses ("negative pulses") defined as a pulse having a first portion that is positive and then a second portion that is negative. Second biphasic pulses

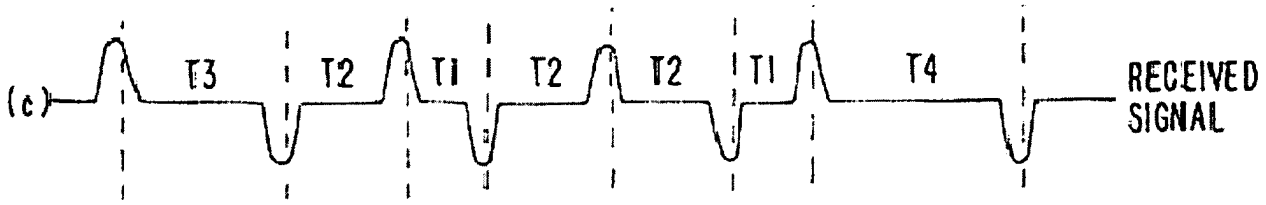
("positive pulses") are defined as pulses that have a first portion that is negative and then a second portion that is positive. Overall, the pulses alternate "polarity" going between negative and positive pulses. This is illustrated in Figure 2b where it is shown that the biphasic pulses alternate; that is, there is a sequence of a negative pulse, positive pulse, negative pulse, positive pulse, etc. These pulses themselves do not necessarily indicate data. Rather, the time between pulses is the indication of the data. Four different times (T1, T2, T3, and T4) are shown in Figure 2b. Each of these times represents a plurality of bits. For instance, T1 can equal 00, T2=01, T3=10, and T4=11. Thus, the duration, or dead time, between biphasic pulses determines what data is transmitted.

The method in claim 19 generates either a first pulse, which is either a positive or a negative pulse; waits a period of time (for example T1, T2, T3, or T4) representing a plurality of bits (such as '00', '01', '10', '11'); generates a second pulse opposite from the previous such that when a positive pulse is first generated then a negative pulse is second generated; and waits a second period of time representing a plurality of bits. The method then repeats these four steps representing a third and fourth plurality of bits. (*See*, Graham p. 3, ll. 28-30 through p. 4, ll. 1-10; p. 4, ll. 21-29; and fig. 2b)

There are advantages to time modulation using alternating biphasic pulses, which is a central idea of the present invention. Alternating polarity, as described in the application, reduces interference between consecutive biphasic pulses so that the signal received can be more easily recovered. (*See*, Graham p. 5, ll. 27-29)

b. Independent Claim 25

Claim 25 is directed to a method of decoding data such as a waveform illustrated in one embodiment by Figure 2c of Graham.



Graham Figure 2c

The method detects the transmission of a first pulse, which is either a positive or a negative pulse; detects the transmission of a second biphasic pulse opposite from the previous such that when a positive pulse is previously detected then a negative pulse is detected; measures the period of time between pulses (for example T1, T2, T3, or T4); and correlates the measured time to a plurality of bits (such as '00', '01', '10', '11'). The method then detects a third biphasic pulse opposite from the second pulse, measures the time between the second and third pulses, and correlates the measured time to a plurality of bits. The method repeats these steps for a third and fourth plurality of bits. (*See*, Graham p. 3, ll. 28-30 through p. 4, ll. 1-10; p. 6, ll. 1-9; and fig. 2c)

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: 8/21/06

By: _____
Edwin Taylor
Reg. No. 25,129

1279 Oakmead Parkway
Sunnyvale, CA 94085-4040
(408) 720-8300